

Optical Images and Stellar Spectra Lab Activity

Match the Star according to its image and spectrum. What color would you classify the star? Why?

List of Stars

Aldebaran	Capella	Deneb	Procyon	Rigel	Vega
Betelgeuse	Castor	Pollux	Regulus	Sirius	

Properties of the Stars (to help guide you)

Aldebaran

RA Dec 4h35m55s 16d30m33s

Spectral type K5III

Distance (ly) 65.1

Lum (sol) 425

Diam (sol) 44.2

Mass (sol) 1.7

Capella

RA Dec 5h16m41s 45d59m53s

Spectral type G5III+G0II

Distance (ly) 42.2

Lum (sol) 79

Diam (sol) 12

Mass (sol) 2.7

Deneb

RA Dec 20h41m26s 45d16m49s

Spectral type A2Ia

Distance (ly) 3200

Lum (sol) 54,000

Diam (sol) 110

Mass (sol) 20

Betelgeuse

RA Dec 5h55m10.26s 7d24m26s

Spectral Type M21b

Distance (ly) 430

Lum (sol) 105.000

Diam (sol) 936

Mass (sol) 18

Castor

RA Dec 7h34m36.0s 31d53m18s

Spectral type A1V

Distance (ly) 51.5

Lum (sol) 30/14

Diam (sol) 2.3/1.6

Mass (sol) 2.2/1.7

Pollux

RA Dec 7h45m19s 28d1m34s

Spectral type K0III

Distance (ly) 33.7

Lum (sol) 32

Diam (sol) 8

Mass (sol) 1.9

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Procyon

RA Dec 7h39m18s 5d13m30s

Spectral type F5IV

Distance (ly) 11.4

Lum (sol) 7.7

Diam (sol) 2.0

Mass (sol) 1.5

Rigel

RA Dec 5h14m32.3s -8d12m6s

Spectral type B8Ia

Distance (ly) 770

Lum (sol) 66,000

Diam (sol) 78

Mass (sol) 17

Vega

RA Dec 18h36m56s 38d47m1s

Spectral type A0V

Distance (ly) 25.3

Lum (sol) 37

Diam (sol) 2.3

Mass (sol) 2.1

Regulus

RA Dec 10h8m22.3s 11d58m2s

Spectral type B7V

Distance (ly) 77.5

Lum (sol) 150

Diam (sol) 3.2

Mass (sol) 3.5

Sirius

RA Dec 6h45m9s -16d42m58s

Spectral Type A1V

Distance (ly) 8.6

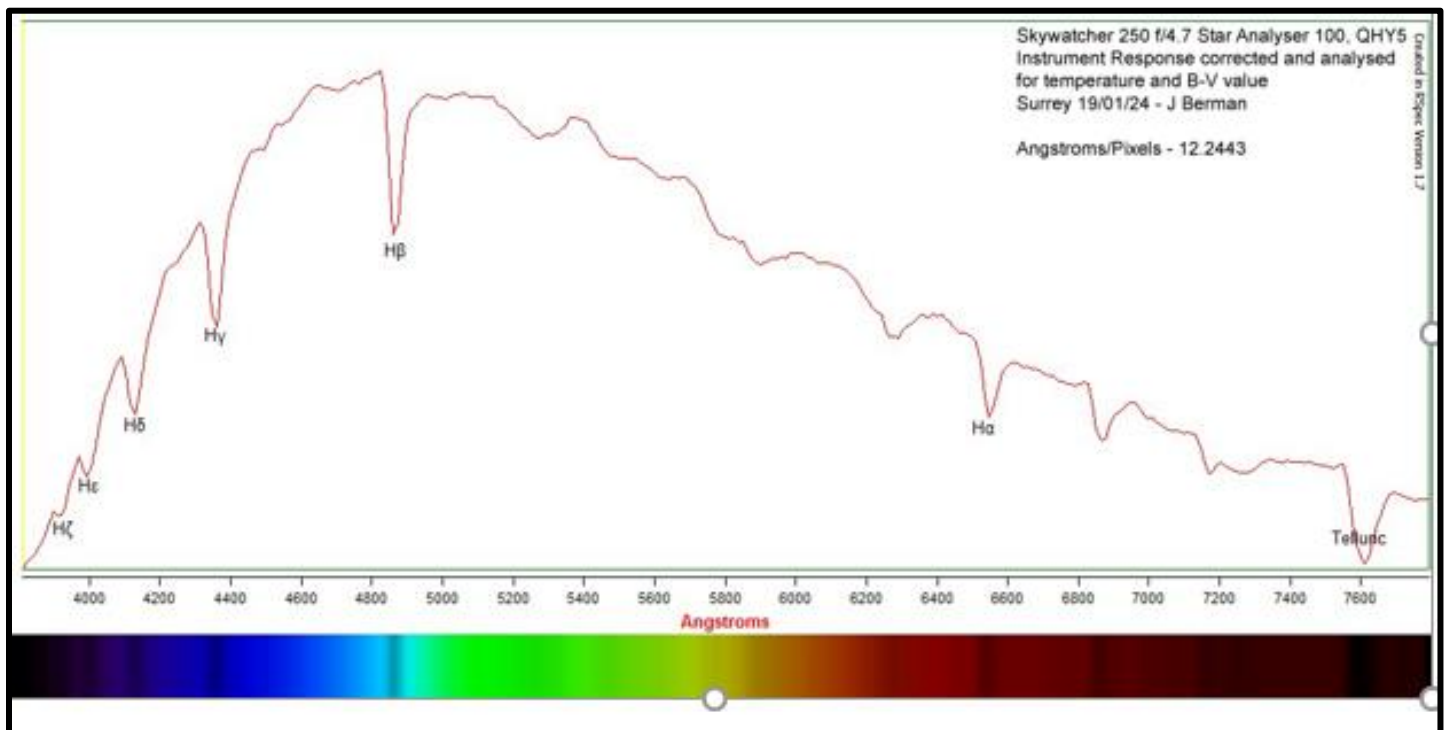
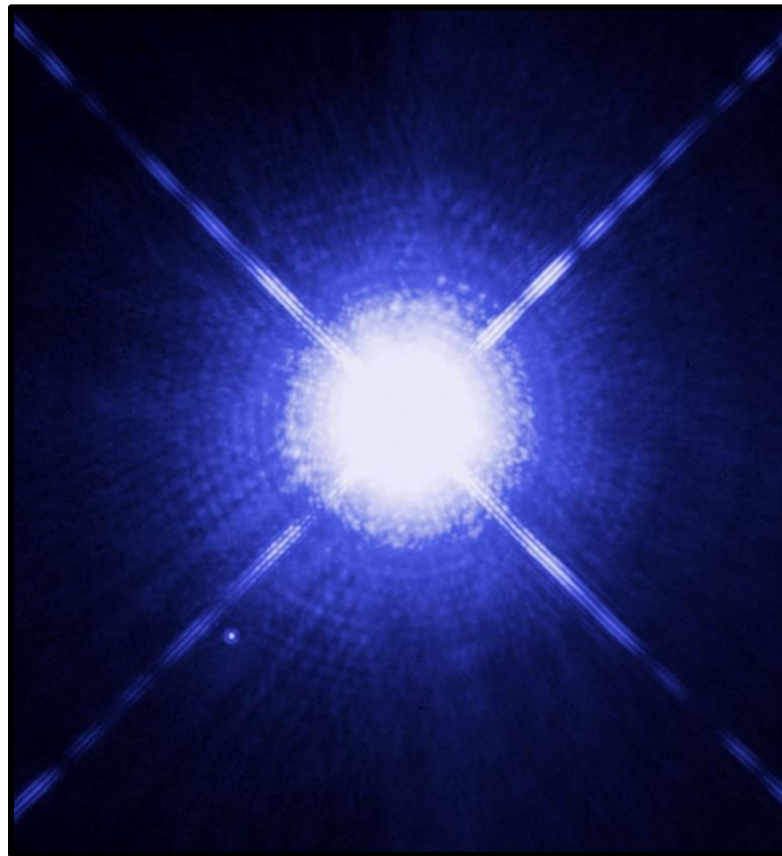
Lum (sol) 25

Diam (sol) 1.7

Mass (sol) 2.0

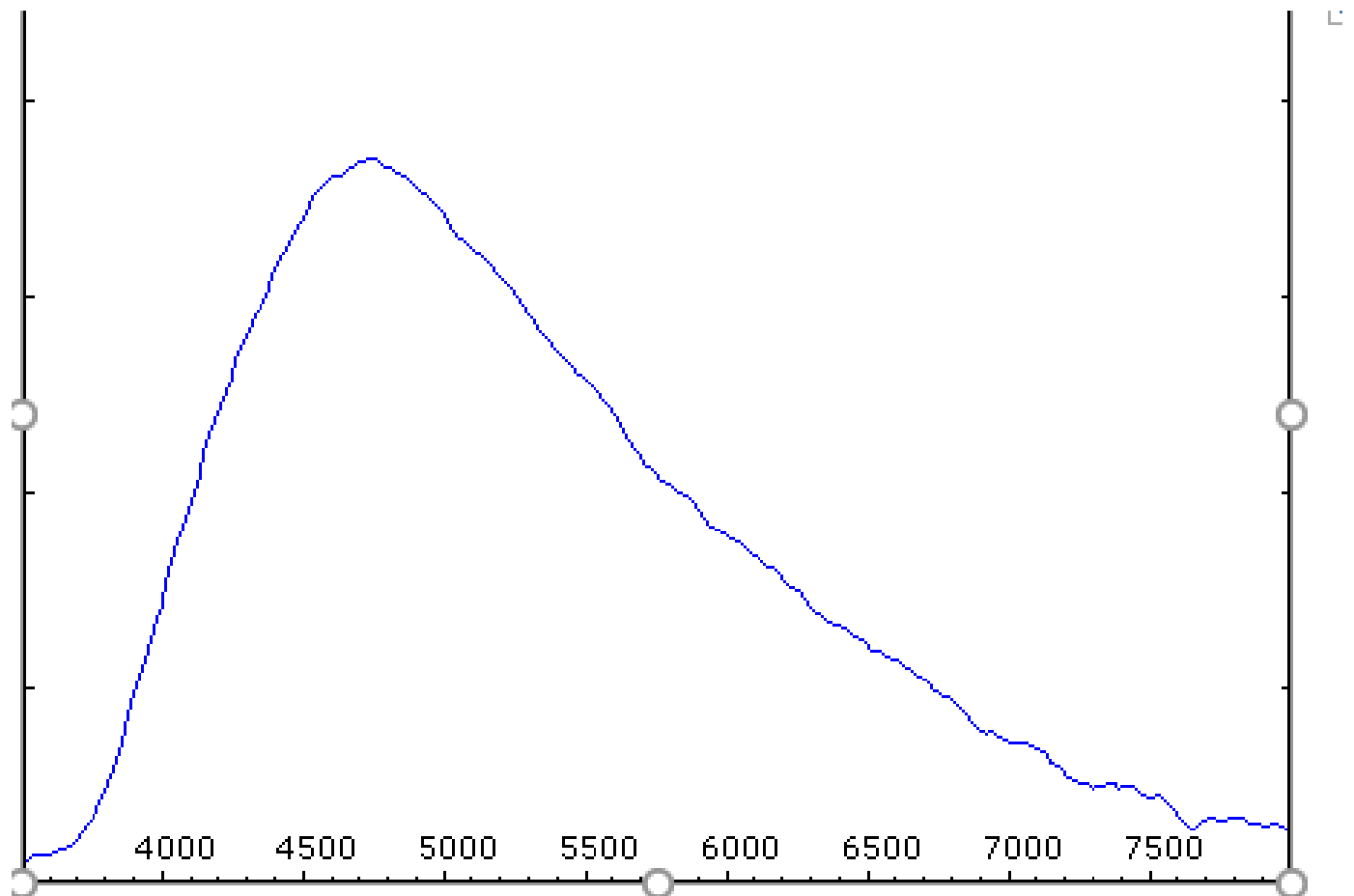
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1. Star: _____ Color: _____



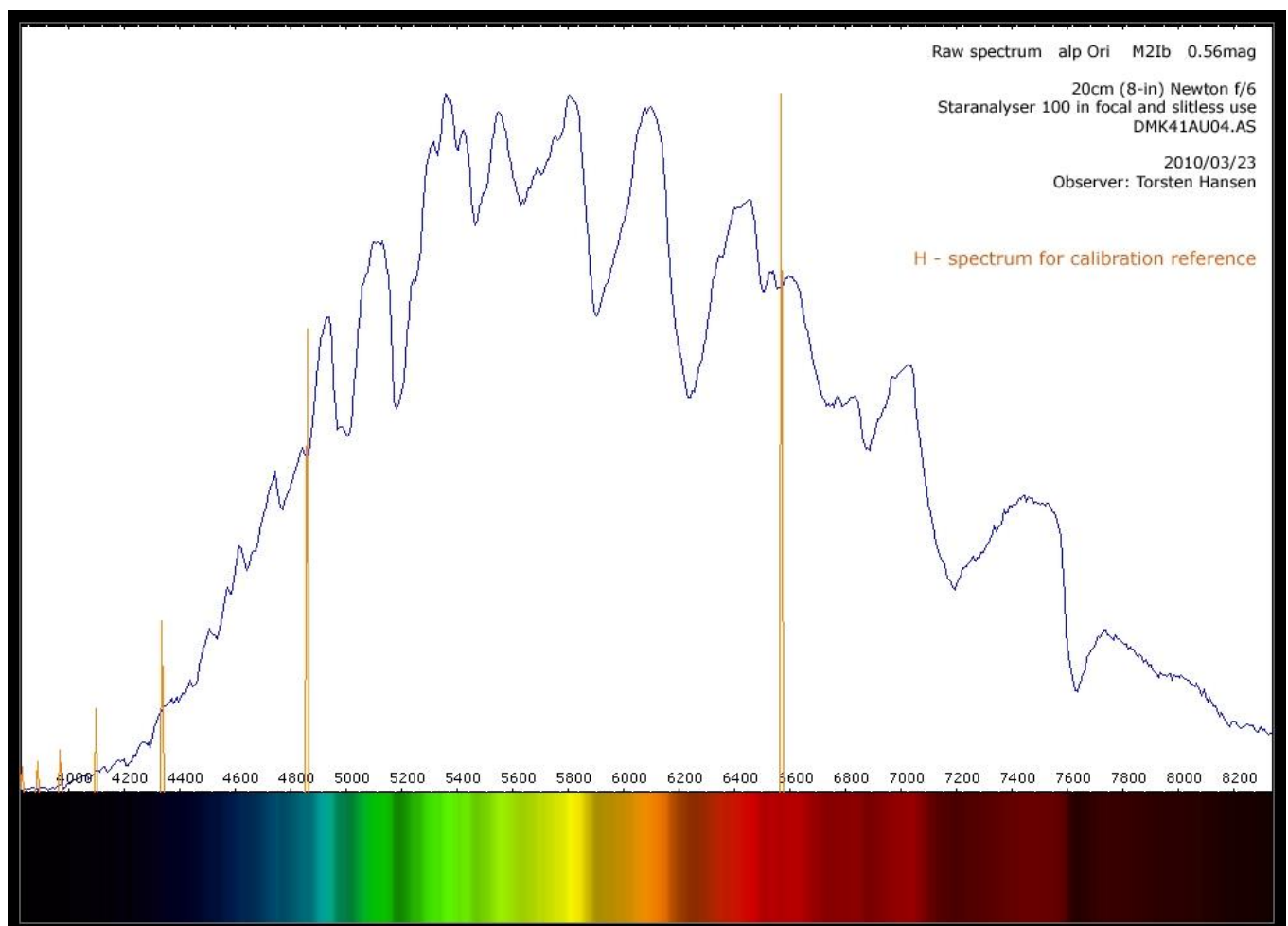
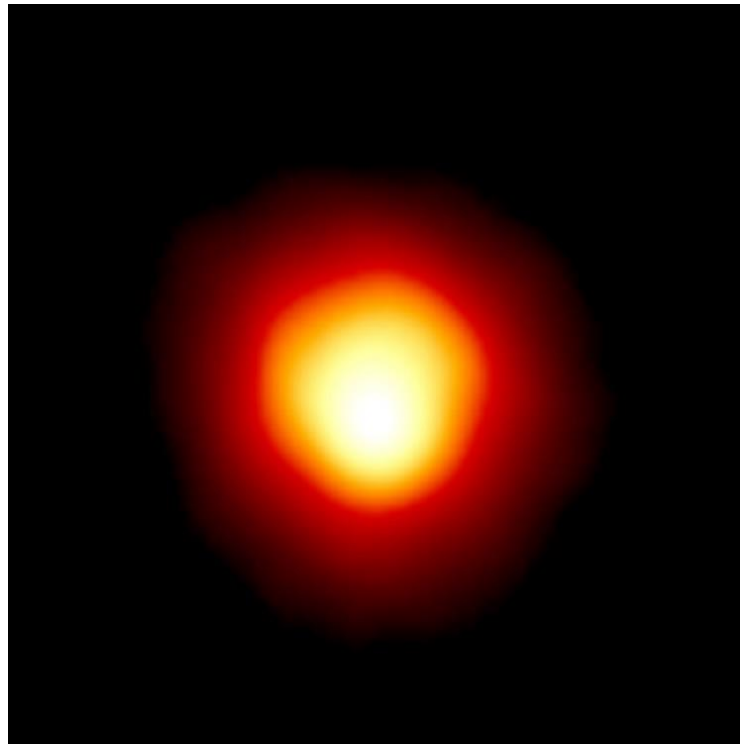
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2. Star: _____ Color: _____



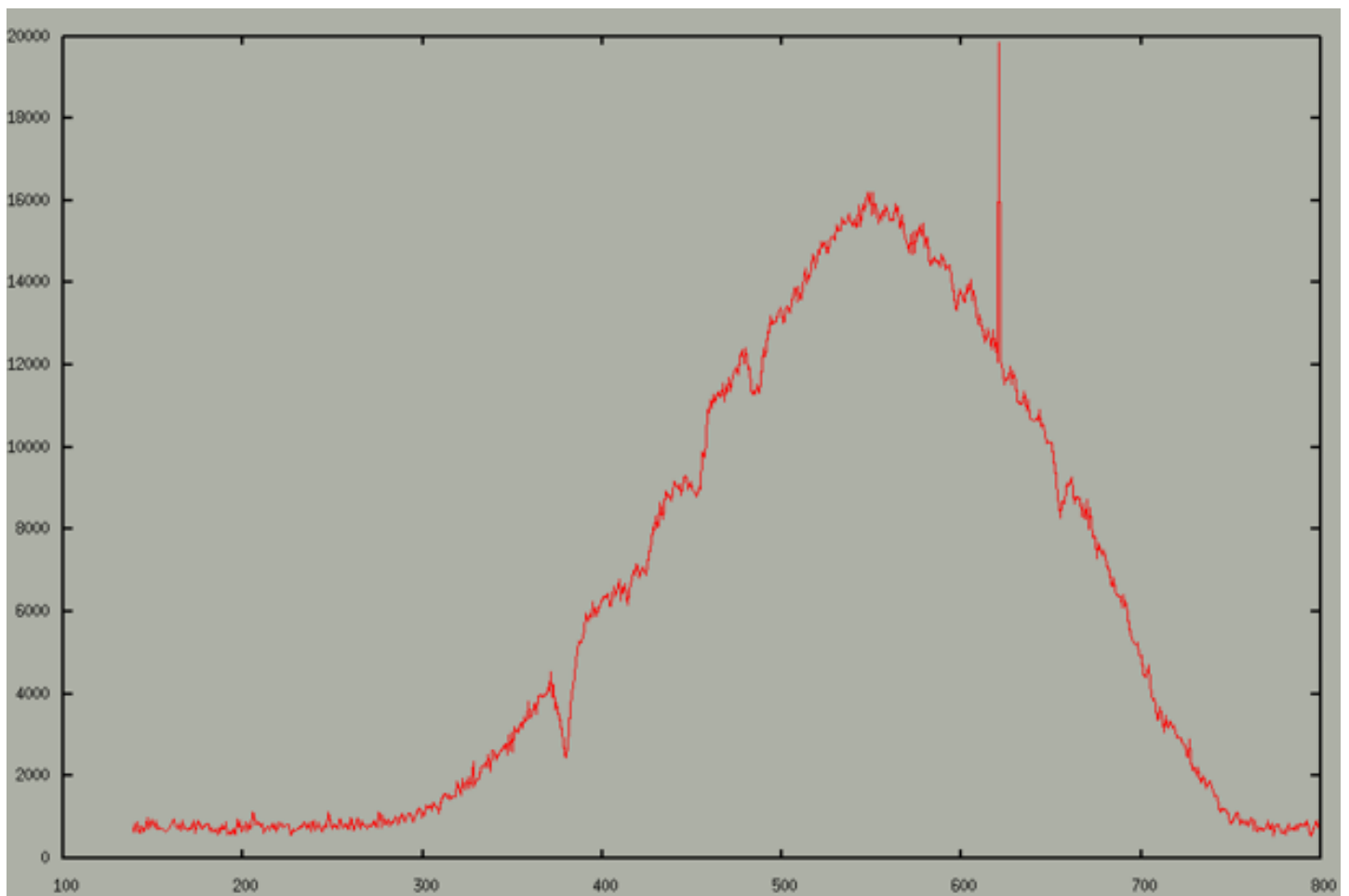
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3. Star: _____ Color: _____



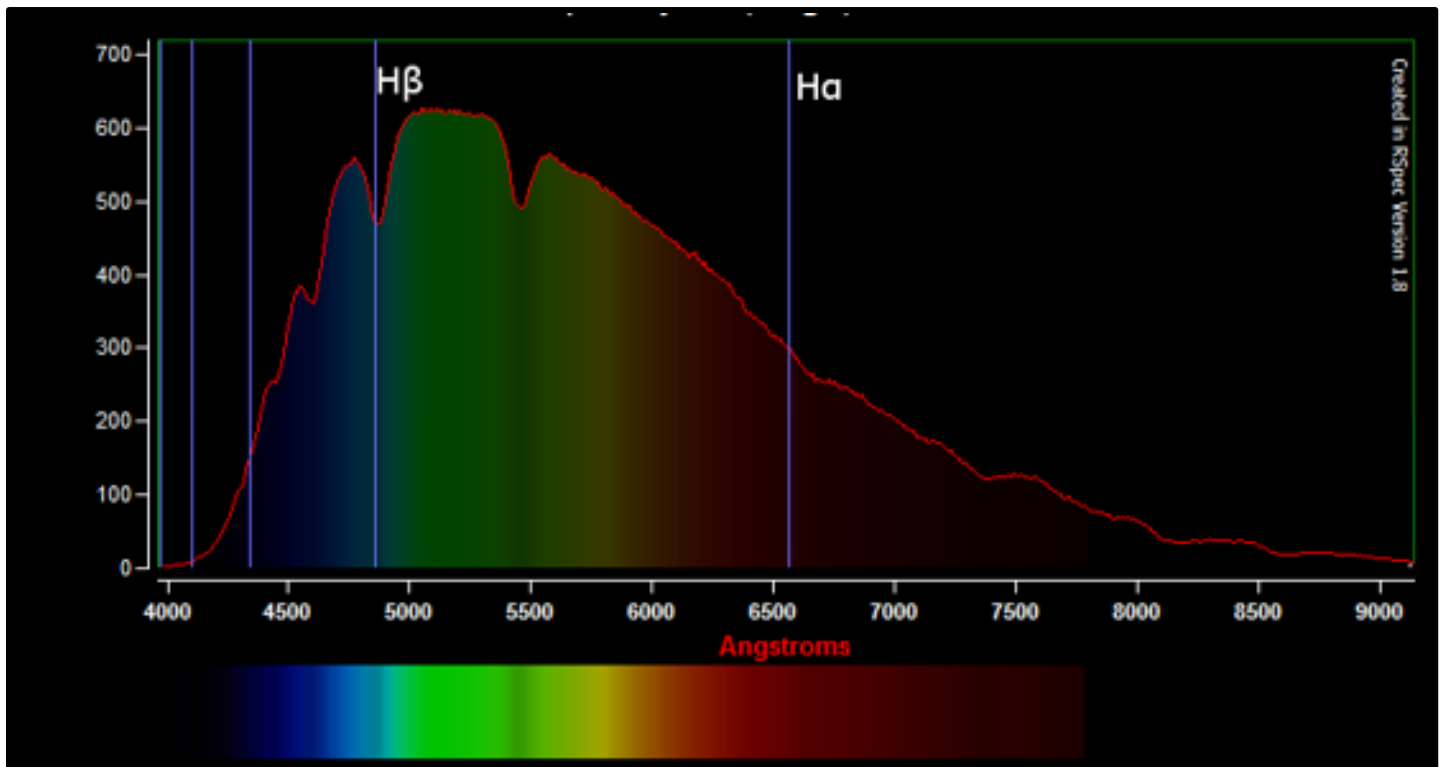
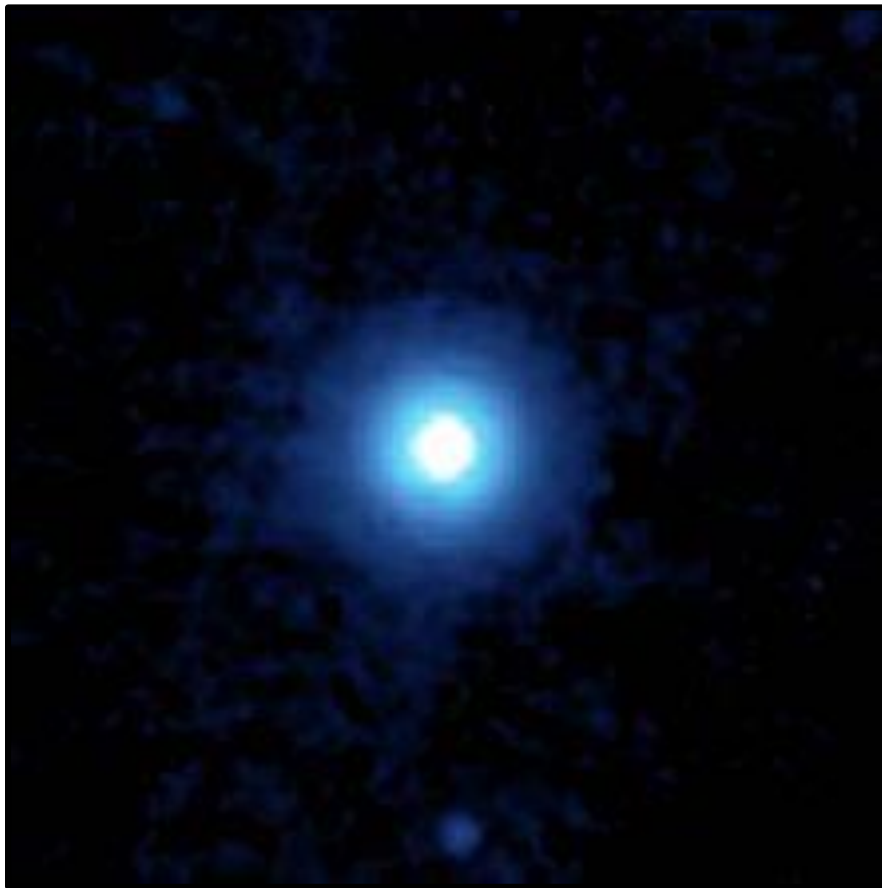
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4. Star: _____ Color: _____



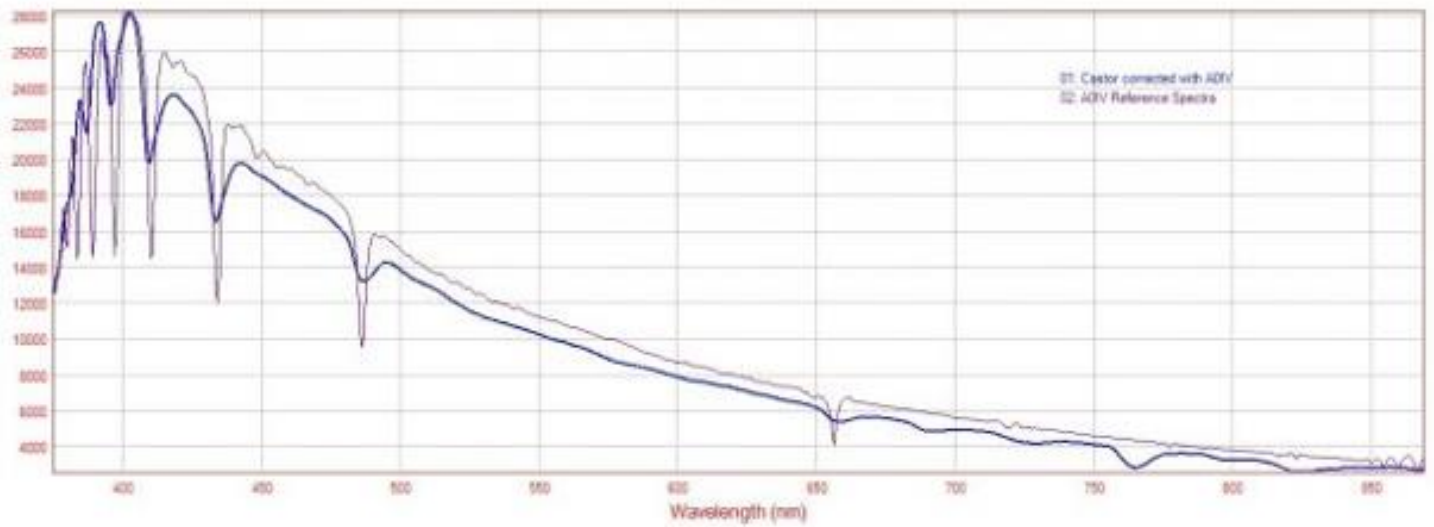
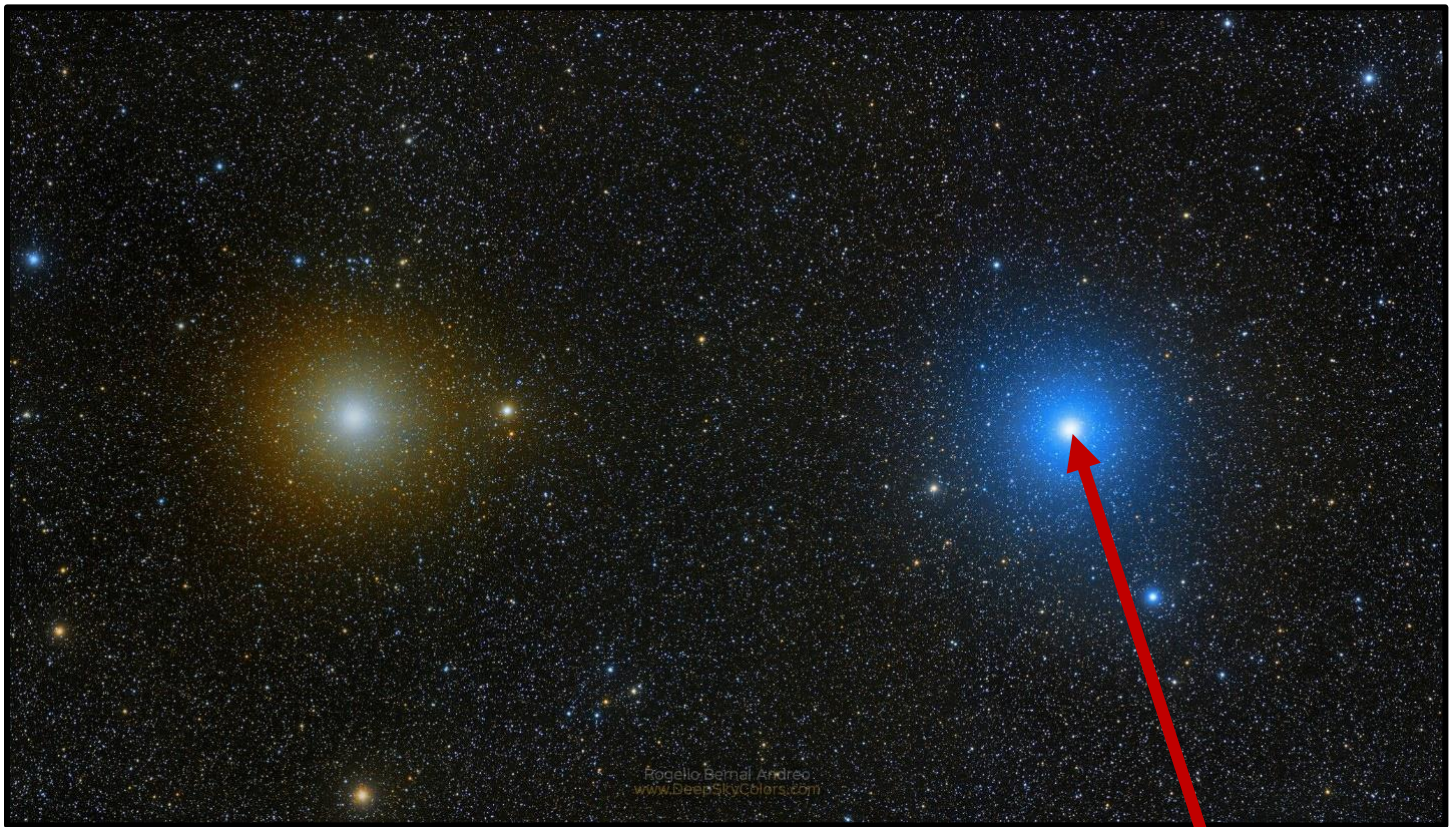
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5. Star: _____ Color: _____



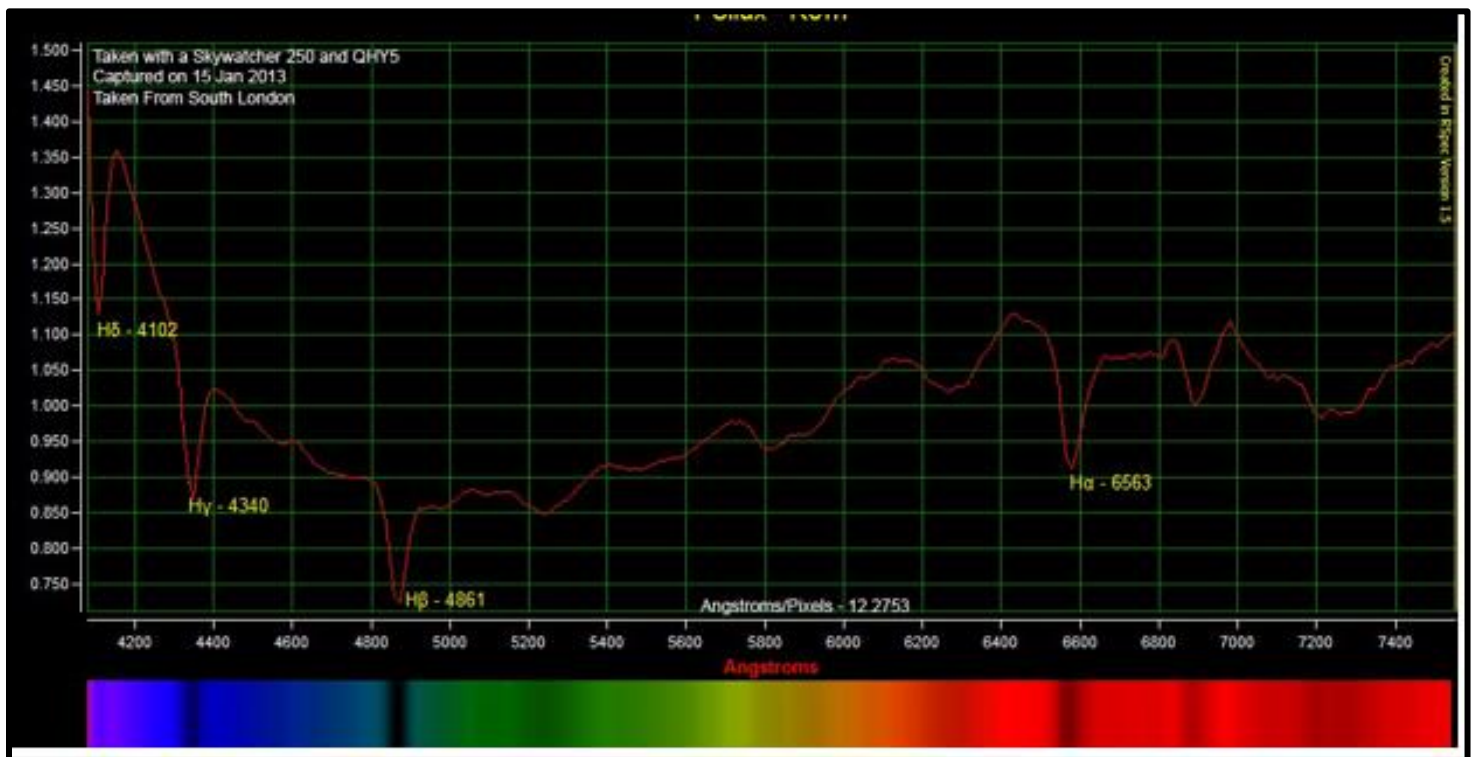
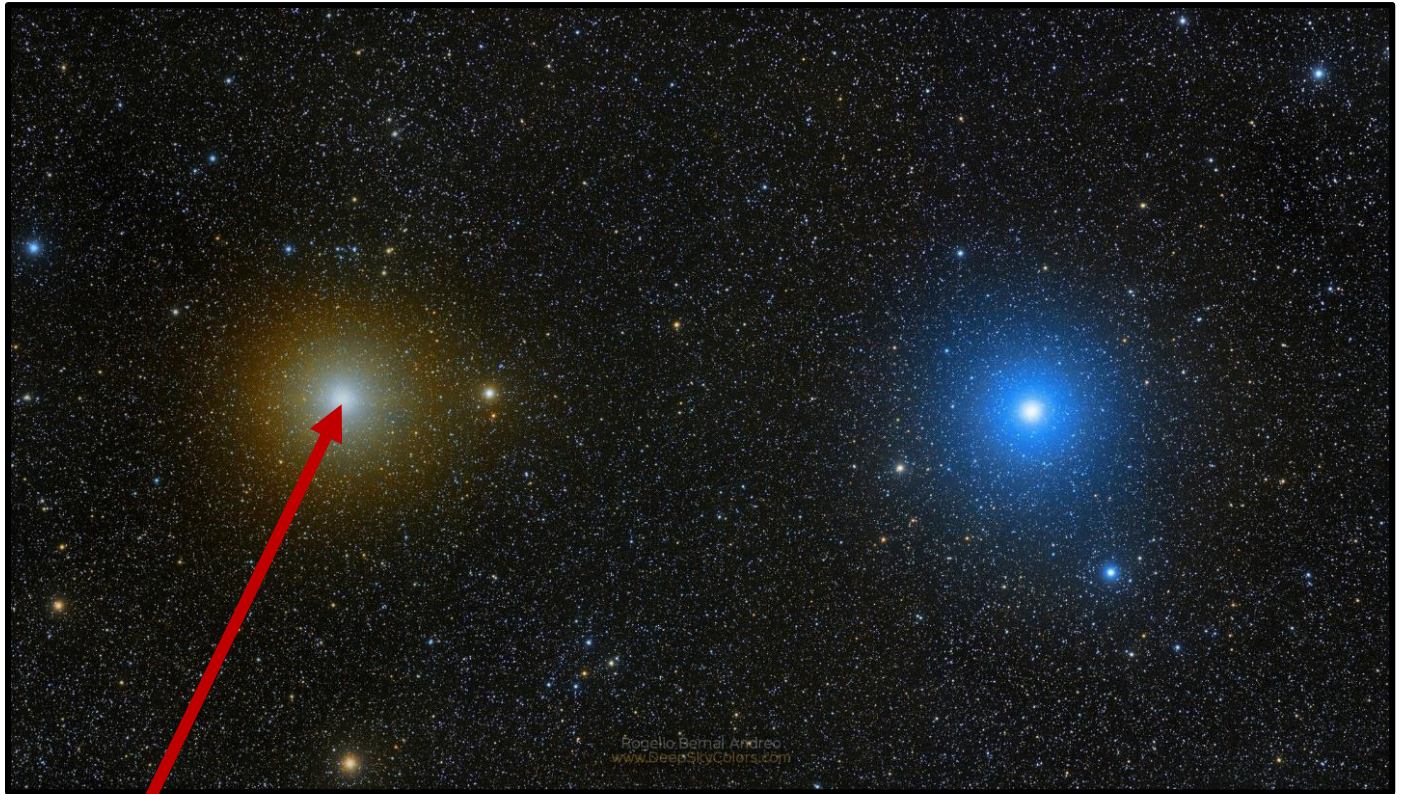
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6. Star: _____ Color: _____



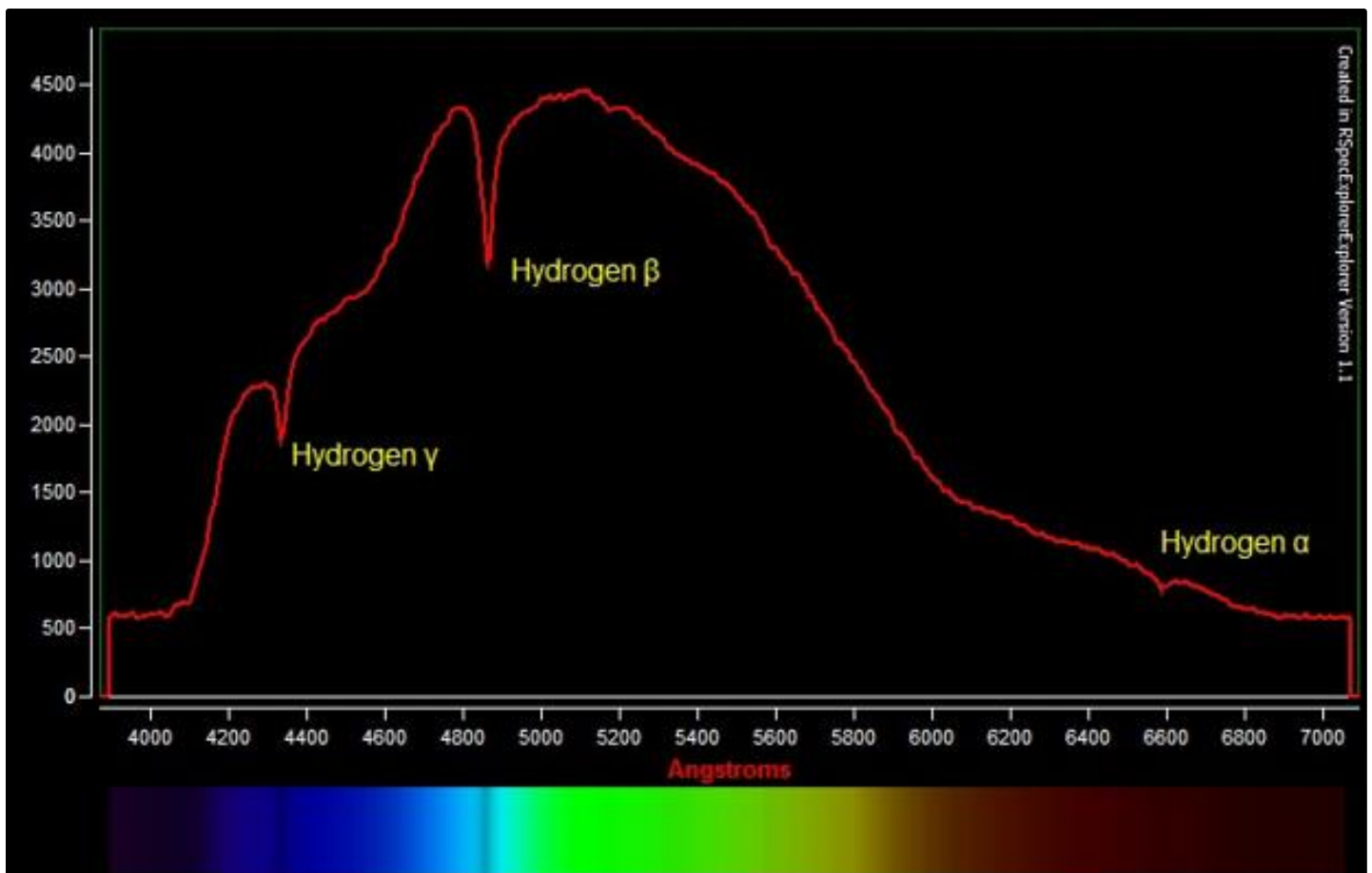
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7. Star: _____ Color: _____



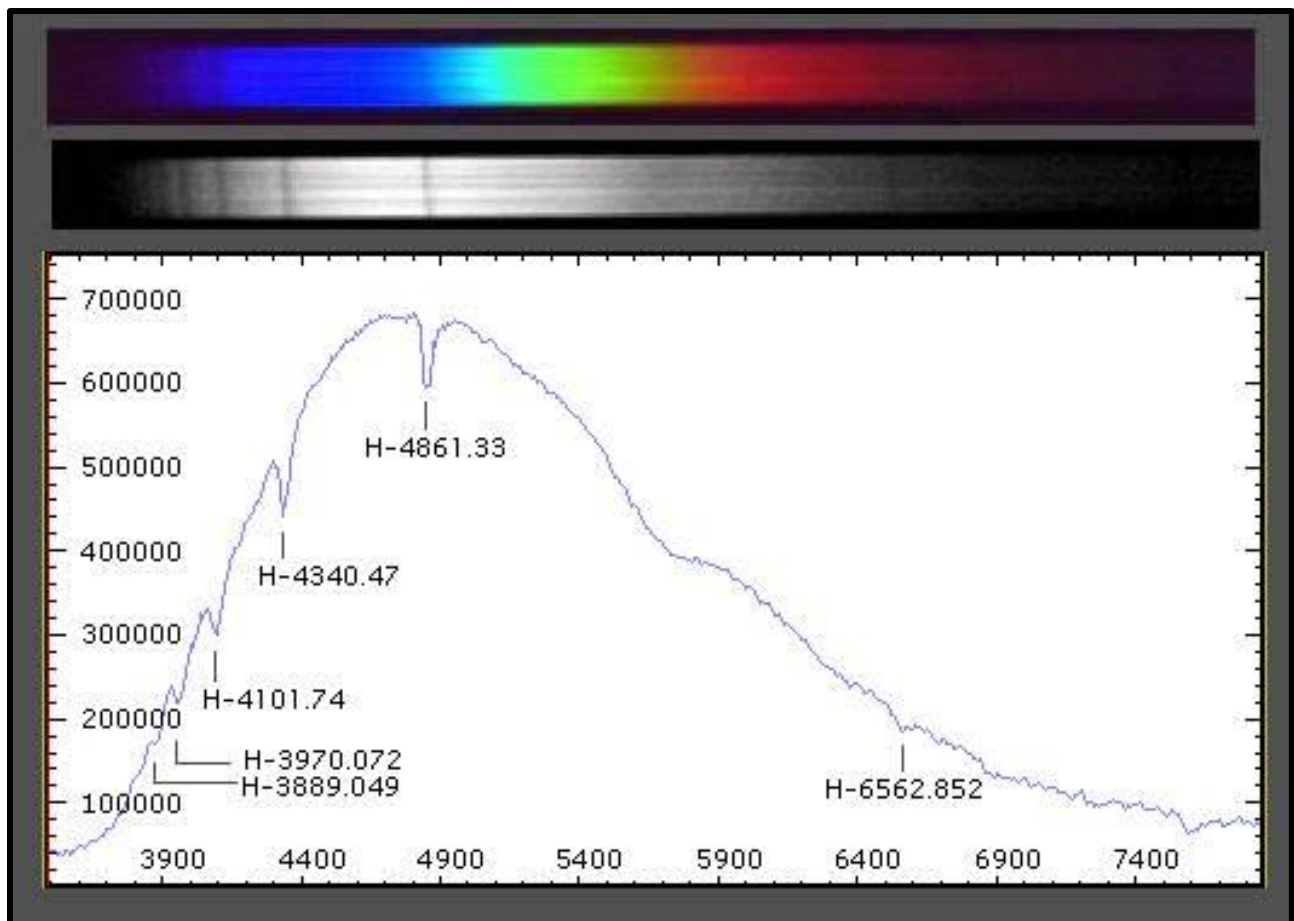
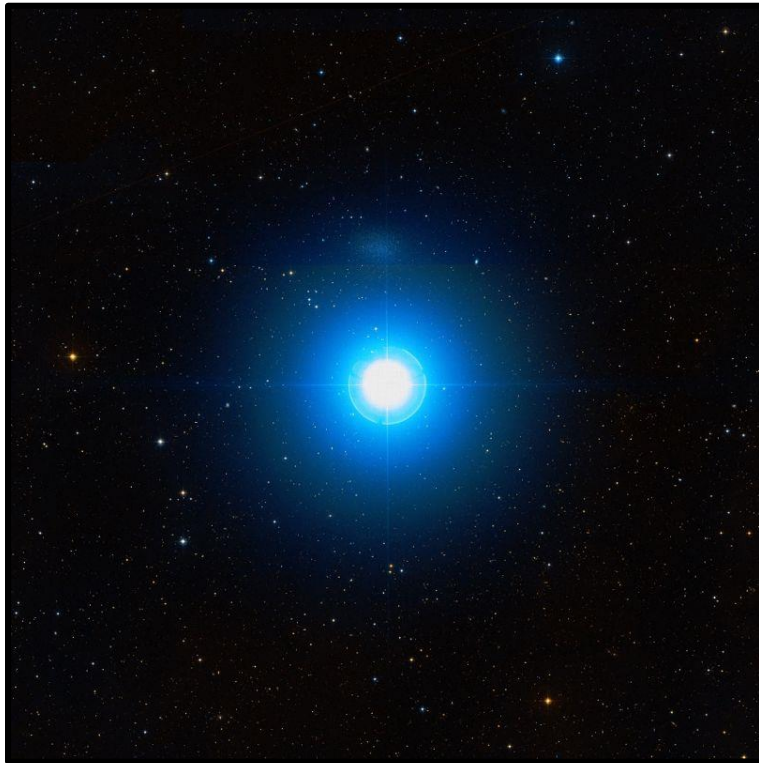
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8. Star: _____ Color: _____



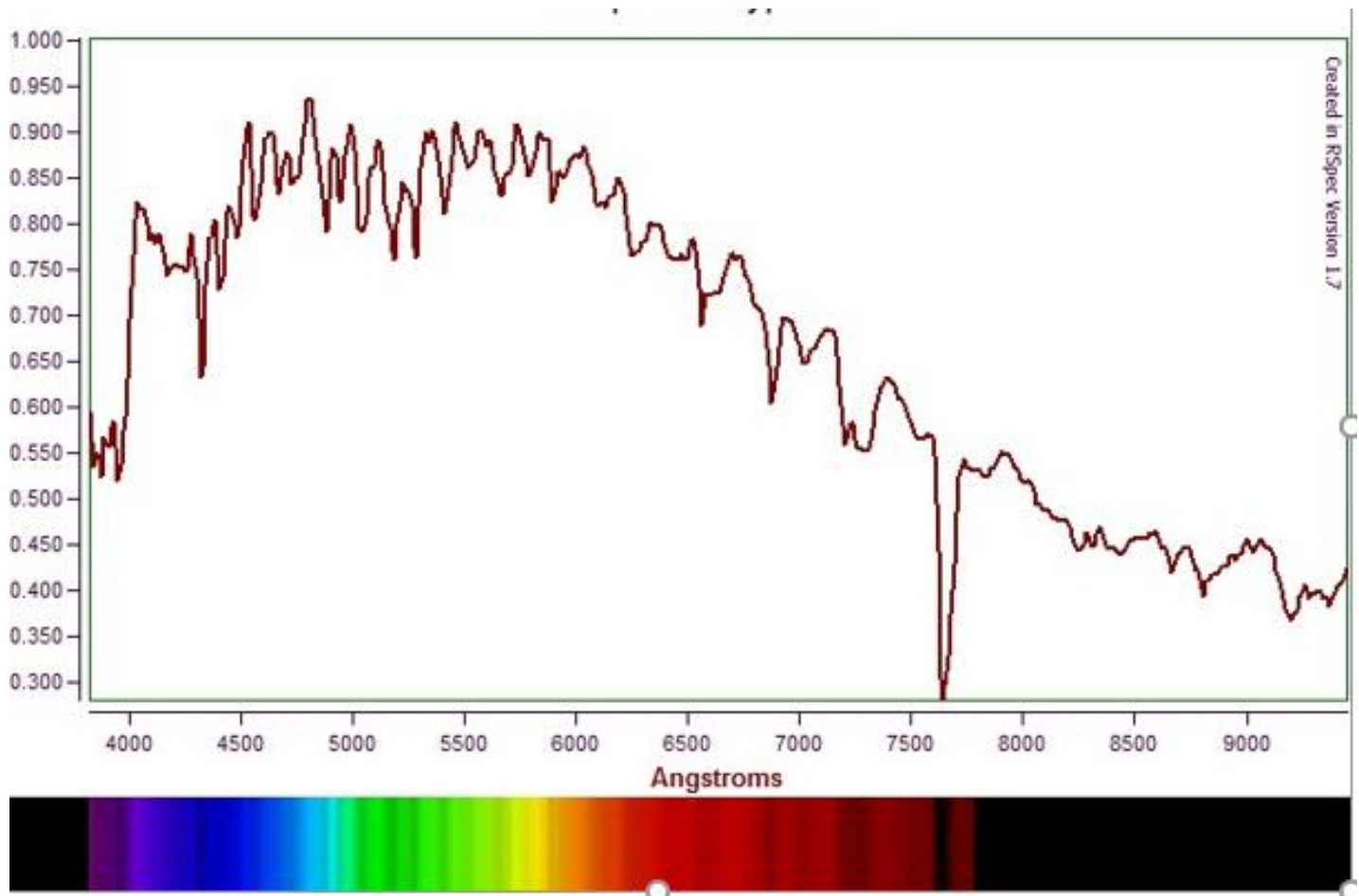
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9. Star: _____ Color: _____



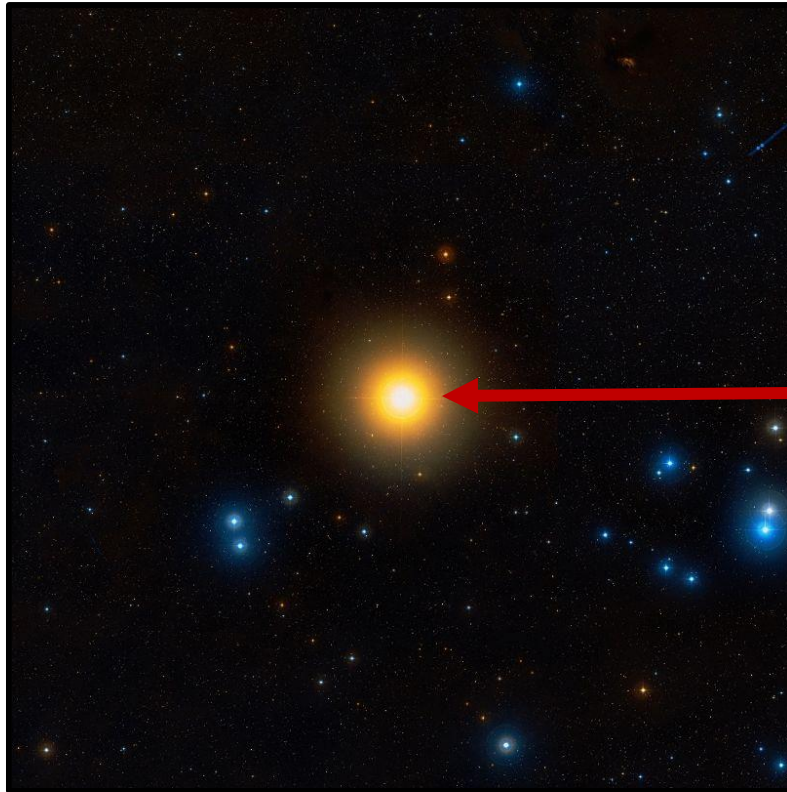
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10. Star: _____ Color: _____



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11. Star: _____ Color: _____



Profile

